IN THE CLAIMS:

The following is a complete listing of the claims, and replaces all earlier

version and listings.

Claim 1. (Currently Amended): An image processing method for

~~controlling~~ determining a starting point which produces a black component between

vertices showing a plurality of chromatic colors and a vertex showing a black in a

reproducible color space of a color output apparatus, an amount of the black component

between the starting point and the vertex showing the black and an amount of a

complementary color component, when a look-up table ~~is prepared to converte~~ for

converting an input color signal into a plurality of color components including a black

component is prepared, said method comprising the steps of:

~~wherein~~ determining the starting point which produces ~~said~~ the black

component based on the value of the complementary color component corresponding to the

chromatic color which is inconspicuous in a graininess of a black recording material in an

output image ~~is controlled~~;

determining the amount of the black component between the starting

point and the vertex showing the black by linearly increasing the black component from the

starting point to the vertex showing the black, independently of the complementary color

component corresponding to the chromatic color; and

determining the amount of the complementary color component

based on the determined amount of the black component.

Claim 2. (Currently Amended): The image processing method according to claim 1, wherein, in each line linking each vertex showing ~~said~~ the plurality of chromatic colors and the vertex showing the black on ~~said~~ the color space, the starting point independently producing ~~said~~ the black component ~~is controlled~~ and the amount of the black component are determined.

Claim 3. (Previously Presented): The image processing method according to claim 1, wherein, from said black component starting point to the vertex showing said black, the chromatic color component and the complementary color component and the black component are calculated by using a function.

Claim 4. (Currently Amended): An image processing method for preparing a look-up table for converting an input color signal into an output color signal constituted by a plurality of color components which are used when a color output apparatus outputs a color image,

wherein the method is intended for setting up a lattice point between a vertex showing the chromatic color and a vertex showing the black in a reproducible color space of said color output apparatus, and wherein, in accordance with the method:

an interval between the vertex showing ~~said~~ the chromatic color and the vertex showing the black is divided into a plurality of areas different in the combination of a color component used in ~~said~~ a color reproduction, and a lattice point is set up

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according to a ratio of each area between the vertex showing ~~said~~ the chromatic color and

the vertex showing the black.

Claim 5. - 7. (Canceled)

Claim 8. (Currently Amended): A program for realizing an image

processing method for ~~controlling~~ determining a starting point which produces a black

component between vertices showing a plurality of chromatic colors and a vertex showing

a black in a reproducible color space of a color output apparatus, an amount of the black

component between the starting point and the vertex showing the black and an amount of a

complementary color component, when a look-up table ~~is prepared to converte~~ for

converting an input color signal into a plurality of color components including a black

component is prepared, said method realized by said program comprising the steps of:

~~wherein~~ determining the starting point which produces ~~said~~ the black

component based on the value of the complementary color component corresponding to the

chromatic color which is inconspicuous in a graininess of a black recording material in an

output image ~~is controlled~~;

determining the amount of the black component between the starting

point and the vertex showing the black by linearly increasing the black component from the

starting point to the vertex showing the black, independently of the complementary color

component corresponding to the chromatic color; and

determining the amount of the complementary color component based on the determined amount of the black component.

Claim 9. (Currently Amended): A program for realizing an image processing method for preparing a look-up table for converting an input color signal into an output color signal constituted by a plurality of color components which are used when a color output apparatus outputs a color image,

wherein the method realized by the program is intended for setting up a lattice point between a vertex showing the chromatic color and a vertex showing a black in a reproducible color space of ~~said~~ the color output apparatus, and wherein, in accordance with the method realized by the program:

an interval between the vertex showing ~~said~~ the chromatic color and the vertex showing the black is divided into a plurality of areas different in the combination of the color component used in ~~said~~ a color reproduction, and a lattice point is set up according to a ratio of each area between the vertex showing ~~said~~ the chromatic color and the vertex showing the black.

Claim 10. (Canceled)

Claim 11. (New): An image processing method for determining a starting point which produces a dark color component between vertices showing a plurality of chromatic colors and a vertex showing a black in a reproducible color space of a color

output apparatus, an amount of the dark color component concerning a complementary color component corresponding to a chromatic color between the staring point and the vertex showing the black and an amount of a light color component concerning the complementary color component corresponding to the chromatic color, when a look-up table for converting an input color signal into a black component and a plurality of color components of different densities to be used in identical system color reproduction, said method comprising the steps of:

determining the starting point which produces the dark color component based on the value of the light color component concerning the complementary color component which is inconspicious in a graininess of a dark color recording material concerning the complementary color component corresponding to the chromatic color in an output image;

determining the amount of the dark color component between the starting point and the vertex showing the black by linearly increasing the dark color component from the starting point to the maximum value of the dark color component, independently of the light color component; and

determining the amount of the light color component based on the determined amount of the dark color component.

Claim 12. (New): The image processing method according to claim 11, wherein the starting point producing the black component is controlled based on the value of the color component corresponding to the dark recording material concerning the

complementary color component which is inconspicuous in the graininess of the black recording material in the output image.

Claim 13. (New): The image processing method according to claim 11, wherein the starting point independently producing the black component is controlled in respective lines linking respective vertices showing the plurality of chromatic colors and the vertex showing the black.

Claim 14. (New): A recording medium recording a program for realizing an image processing method for determining a starting point which produces a dark color component between vertices showing a plurality of chromatic colors and a vertex showing a black in a reproducible color space of a color output apparatus, an amount of the dark color component concerning a complementary color component corresponding to a chromatic color between the starting point and the vertex showing the black and an amount of a light color component concerning the complementary color component corresponding to the chromatic color, when a look-up table for converting an input color signal into a black component and a plurality of color components of different densities to be used in identical system color reproduction, the method realized by the program recording on the recording medium comprising the steps of:

determining the starting point which produces the dark color component based on the value of the light color component concerning the complementary color component which is inconspicuous in a graininess of a dark color recording material

concerning the complementary color component corresponding to the chromatic color in an output image;

determining the amount of the dark color component between the starting point and the vertex showing the black by linearly increasing the dark color component from the starting point to the maximum value of the dark color component, independently of the light color component; and

determining the amount of the light color component based on the determined amount of the dark color component.